

KTWQP Nutrient, Phytoplankton, Periphyton and Algal Toxin SAP

Appendix A.

Churn Splitter Field Sampling

Use of the Churn in the Field

- Completely filling the churn allows all samples to be filled from one churn; thereby minimizing differences in water properties and quality between samples.
- Proper use of the churn guarantees the water is well mixed before the sample is collected.
- The churn should be stirred at a uniform rate by raising or lowering the splitter at approximately 9 inches per second (Bel-Art Products, 1993). This mixing must continue while the bottles are being filled.
- If filling is stopped for some reason, the stirring rate must be resumed before the next sample is drawn from the churn.
- As the volume of water in the churn decreases, the round trip frequency increases as the velocity of the churn splitter remains the same.
- Care must be taken to avoid breaking the surface of the water as the splitter rises toward the top of the water in the churn.